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Environmental  
Protection Agency

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Fall 1987

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**Division of  
Water Pollution Control**



The 1970 Illinois Environmental Protection Act states that "no one person shall cause or threaten or allow the discharge of any contaminants into the environment ... so as to cause or tend to cause water pollution in Illinois."

The Illinois Environmental Protection Agency's (IEPA) water pollution program is designed to identify sources of water pollution and implement steps to reduce and prevent it from continuing.

The Agency's Division of Water Pollution Control in cooperation with local and industrial groups are working to achieve clean water for the citizens of Illinois.

## Water Quality Standards

Illinois has had water quality standards since 1967. The current set of Illinois general use standards regulate 30 different pollutants including arsenic, copper, cyanide, iron, lead, mercury, dissolved oxygen, pH, alkalinity and temperature. There are nearly 40 standards set for public and food processing water supplies. These supplies may contain pesticides like chlordane, DDT, aldrin-dieldrin, heptachlor, and parathion.

Illinois also has nearly 20 effluent standards or limitations that apply to wastewater released from industries or municipal sewage systems into rivers, lakes or streams.

## Surveillance and Enforcement

Wastewater discharges and the quality of the receiving body of water are monitored to insure that water quality and effluent standards are met. Municipal and industrial treatment plants must keep continuous records of discharge characteristics.

Since 1973 a broad data base on stream quality has been developed from a network of several hundred sampling stations located on streams throughout the state that are sampled on a regular basis.

In addition to this network, more detailed water quality, sediment, fishery and habitat data are

collected through intensive basin investigations. Data collected from these stream monitoring efforts are summarized in the biennial Illinois Water Quality Report.

The Division's field staff in Champaign, Collinsville, Marion, Maywood, Peoria, Rockford and Springfield take stream and effluent samples to check for compliance with the water quality standards. They also conduct annual inspections of sewage treatment plants, assist in operator training, investigate complaints and help monitor and control emergency spills where an accident involving oil or toxic chemicals may cause water pollution.

When violations are detected through the Division's field and program monitoring activities and corrective action is not taken by the discharger, formal enforcement actions are initiated. The enforcement cases are referred to the Illinois Attorney General's office for prosecution before the Illinois Pollution Control Board.

## Construction Grants

Communities must often install costly wastewater treatment facilities to meet water quality and effluent standards. In November 1970 the Anti-Pollution Bond Act passed by Illinois citizens provided \$750 million in state funds to assist municipalities in providing adequate sewage treatment. A federal construction grant program also provides funding assistance to local communities.

Gov. James R. Thompson's Build Illinois program is a state funded grants program designed to improve Illinois' infrastructure, which includes improving or building wastewater facilities. Those municipalities who have applied for grants are chosen according to how severe the water pollution problem is, or may become, without upgraded or new facilities. Since the creation of the Build Illinois program in 1986, 205 projects have received grant appropriations of more than \$127 million.

To allocate funds effectively a priority list is established to rank projects requesting funding and offer funding to the projects with the top priority ratings. At least 700 municipalities are upgrading

sewage treatment facilities under the state and federal construction grant program to meet stringent federal and state regulations.

## Operator Training

Equally important to upgrading sewage treatment facilities is trained personnel to run both existing and new plants. The Environmental Resource Training Center (ERTC) at Southern Illinois University, Edwardsville, is an operator training facility built in 1977 with \$2 million in state Anti-Pollution Bond Act funds.

ERTC provides classroom, laboratory and hands-on-training for water quality control personnel. ERTC assists community colleges by providing training aids and instructor materials to help improve the quality of training throughout the state. In 1986 ERTC opened an extension office in Elmhurst, to better meet the operator training needs in the northern part of the state.

The Division's operator certification staff work closely with ERTC in the development of certification examinations and study materials. An expanded operator-in-training certification program was implemented in November 1986 which included the addition of two new levels of certification.

All wastewater treatment plant owners are required to employ qualified operations personnel.

## NPDES Permits

The National Pollutant Discharge Elimination System (NPDES) is a permit system established by the 1972 Amendments of the Clean Water Act. Under this system private, industrial or commercial establishments, publicly-owned sewage treatment facilities, municipally-controlled discharge points and certain categories of livestock feedlots must have a permit to discharge waste into the nation's waters. In Illinois, permits are issued by the IEPA.

The 1972 Amendments set goals for water quality by 1983 and for elimination of all pollutant discharges by 1985. The law also required a

minimum of secondary treatment, (a biological process with a physical settling such as lagoons, activated sludge application or trickling filters) for all municipal wastewater discharges. Secondary treatment is required by all publicly-owned wastewater treatment plants by July 1, 1988.

Stringent standards and limitations were also required for industry. The law called for the "best practicable control technology" by 1977 and the "best available technology" by March 31, 1989.

## Keeping Pace With Growth

As communities grow, the need for new or extended sewer systems also grows enhancing the danger of water pollution. The IEPA notifies sewage treatment plant operators when the plant has reached its capacity and is a potential water polluter. If corrective action is not taken, the treatment plant will be placed on the restricted status list. This is a list of the sewage treatment plants that cannot make any new sewer additions until the plant or portions of the system are remodeled, added to or otherwise corrected. Notification or restriction enables the IEPA to work with treatment plant operators to take corrective action to prevent overloading a system before it contributes to water pollution problems.

## Planning

Water pollutants also come from man's activities carried out on the land. Polluted waters flow freely when rain washes across the land. Sediment, fertilizers, pesticides, oils and grease, chemicals, litter from farming, construction, mining and industrial production contribute to water pollution. Growth from an expanding economy and population is also a cause of pollution in our rivers, lakes and streams. Solutions for this type of pollution are not easy.

As early as 1972 the IEPA began to attack all of these pollution problems. The development of a statewide comprehensive water quality management plan consolidated state efforts to further control water pollution from point and nonpoint sources. Illinois was one of the first states



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to develop a workable plan designed to slow down and control pollution from point source discharges as well as stormwaters, soil erosion, livestock waste and other agriculturally related operations.

The Illinois Water Quality Management Plan is a key tool for coping with water pollution problems, and helping to achieve clean water for citizens everywhere in Illinois.

## The Water Quality Act of 1987

The amendments to the Clean Water Act, passed in February, 1987, establish significant new requirements in the areas of toxics control, sludge management and stormwater permitting. The amendments also retain the deadline dates for most existing requirements. The new Act authorizes capitalization grants to assist states in setting up revolving funds with low interest to build or improve wastewater treatment facilities. It also provides additional funding for the completion of nonpoint source control planning and demonstration projects related to implementation.

For more information contact:

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